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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,345	02/22/2002	Martin Karpf	20407 US1	2961
151	7590	07/14/2004		
HOFFMANN-LA ROCHE INC. PATENT LAW DEPARTMENT 340 KINGSLAND STREET NUTLEY, NJ 07110			EXAMINER KHARE, DEVESH	
			ART UNIT 1623	PAPER NUMBER

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,345

Applicant(s)

KARPF ET AL

Examiner

Devesh Khare

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/18/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

The remarks and request for RCE filed on 05/24/2004, are acknowledged. Claims 3-13 have been cancelled. Claims 1 and 2 are currently pending in this application. In view of the applicant's remarks, the examiner withdraws the 35 U.S.C. 103(a) rejections as obvious over Kent et al. (U.S. 6,204,398), because Kent et al. does not suggest the use of magnesium halide catalyst in the transformation of an epoxide to a 2-aminoalcohol as is claimed in the pending process claims 1 and 2.

During the course of reconsideration of the application, a prior art reference not previously disclosed by the applicants or the examiner came to light (see rejection below).

35 U.S.C. 103(a) rejection

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auge et al. (Auge) (Tetrahedron Letters, 37(43), pp 7715-7716, 1996) in view of Karpf et al. (Karpf) (U.S. Patent 6,437,171).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Claims 1 and 2 are drawn to a process for preparing a 2-aminoalcohol (III) by treating a 1,2-epoxide of formula (II) (claim 1) with an amine in the presence of a magnesium halide catalyst. Additional claim limitations include the amine of formula R^5NHR^6 wherein the amine is allylamine, diallylamine, benzylamine, dibenzylamine or trimethylsilyl amine and the magnesium halide catalyst is magnesium bromide diethyl etherate.

Auge teaches the aminolysis of oxiranes (1,2-epoxide) to produce β -amino alcohols (or 2-aminoalcohol) (abstract on page 7715). Auge discloses the reaction between various oxiranes and amines having the general structure of the formula R_3R_4NH

wherein the epoxide of the oxirane is attacked by the said amine in presence of lithium triflate to produce the β -amino alcohols (page 7716, Table: Aminolysis of Oxiranes).

Auge does not suggest the use of magnesium halide catalyst in the reaction.

Karpf teaches a process for preparing 1, 2-diamino compounds by reacting 1,2-epoxides with an amine (col.2, lines 5-25). Karpf discloses that the reaction time of the said reaction can be reduced significantly with the use of magnesium halide catalyst (col. 6, lines 1-30). Karpf also discloses the amine of formula R^5NHR^6 of the instant claim 2 (col. 5, lines 17-65). Furthermore, the 1,2-epoxide of formula II with various substituents is disclosed (col. 13, line 20). The 1,2-epoxide of formula II and the amine of formula R^5NHR^6 are closely analogous to the applicant's claimed reactants of claims 1 and 2.

Therefore, one of ordinary skill in the art would have found the applicants process for preparing a 2-aminoalcohol, to have been obvious at the time the invention was made having the above references before him because Auge teaches the aminolysis of oxiranes (1,2-epoxide) to produce β -amino alcohols (or 2-aminoalcohol) and Karpf discloses that the reaction time of the said reaction can be reduced significantly with the use of magnesium halide catalyst, a skilled artisan would be motivated to make routine modifications to produce 2-aminoalcohol, an important class of compounds known for their pharmaceutical and biological properties (see Auge, page 7715, 1st para.).

Any inquiry concerning this communication or earlier communications from the


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Examiner should be directed to Devesh Khare whose telephone number is (571)272-0653. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at 571-272-0661. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D., J.D.
Art Unit 1623
July 2, 2004



JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600